

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An image processing method for image processing by using information indicating characteristics of all or part of a consumer item and a routine thereof, comprising the steps of

generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;

generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

~~generating element generating processing module data indicating an attribute of processing for generating an element serving as a component of a first artifact, that is, said consumer item, by using said material;~~

~~generating element module data indicating an attribute of said element using said material module data and said element generating processing module data;~~

generating first artifact module data indicating an attribute of said a first artifact using said element module data;

generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

storing said first artifact module data and said second artifact module data in a searchable form; and

generating image data of a scene connecting said first artifact and said second artifact by using said stored first artifact module data and said second artifact module data.

2. (Canceled).

3. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of inputting image data of a target element, analyzing the input image data, and generating said element module data by using said material module data and said element generating processing module data selected based on results of the analysis.

4. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

generating material shape module data obtained by gathering information relating to a shape of said material, material color module data obtained by gathering information regarding a color of said material, material texture module data obtained by gathering information regarding a texture of said material, and material combination module data obtained by gathering information indicating a combined pattern of the shape, color, and design of said material and

generating said element module data by combining information gathered with at least one of said material shape module data, said material color module data, and said material pattern module data based on a combined pattern indicated by said material combination module data.

5. (Original) An image processing method as set forth in claim 4, further comprising the steps of inputting image data of a target element, analyzing the input image data, and generating said element module data by using said material combination module data, said material shape module data, said material color module data, and said material pattern module data selected based on results of the analysis.

6. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

generating first artifact generating processing module data indicating an attribute of processing performed by using said element so as to obtain said first artifact and

generating said first artifact module data by using said element module data and said first artifact generating processing module data.

7. (Original) An image processing method as set forth in claim 6, further comprising the steps of inputting image data of a target first artifact, analyzing the input image data, and generating said first artifact module data by using said element module data and said first artifact generating processing module data based on results of the analysis.

8. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

- generating second artifact part module data indicating an attribute of a part of said second artifact;
- generating second artifact generating processing module data indicating an attribute of processing for obtaining said second artifact by combining a plurality of said parts;
- and
- generating said second artifact module data by using said second artifact part module data and said second artifact generating processing module data.

9. (Original) An image processing method as set forth in claim 8, wherein said second artifact part module data includes information indicating a relationship with another second artifact part and said first artifact.

10. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of inputting image data of a target scene, analyzing the input image data,

and generating said image data by using said first artifact module data and said second artifact module data selected based on results of the analysis.

11. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of generating at least one ~~at least one~~ of said element module data, said first artifact module data, said second artifact module data, and said scene based on information on an environment wherein said first artifact or said second artifact is used or an environment to which said scene is applied.

12. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the step of generating image data of said scene based on information regarding at least one of a background, visual point, and light source of said scene.

13. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising managing at least one of said module data by defining it using an object oriented object or file, classifying it in accordance ~~with its~~ with its attributes, and adding a tag in accordance with the classification.

14. (Currently Amended) An image processing method as set forth in claim [2] 1, wherein said module data indicates said attributes by using at least one of an image, sound, and text.

15. (Currently Amended) An image processing method as set forth in claim [2] 1, wherein said module data is a hyper data having a hyperlink function for referring to another entity.

16. (Currently Amended) A computer program indicating a routine of image processing using information indicating characteristics of all or a part of a consumer item or its routine and executed by a computer, the computer program embodied in a computer readable medium for performing the steps of comprising:

a routine for generating element module data indicating an attribute of an element serving as a component of a first artifact, that is, said consumer item;

a routine for generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

a routine for generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

a routine for generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

a routine for generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;

a routine for generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

a routine for generating first artifact module data indicating an attribute of said a first artifact by using said element module data;

a routine for generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

a routine for storing said first artifact module data and said second artifact module data in a searchable form; and

a routine for generating image data of a scene connecting ~~wherein~~ said first artifact and said second artifact ~~are linked~~ by using said first artifact module data and said second artifact module data.

17. (Currently Amended) An image processing apparatus for image processing using information indicating characteristics of all or part of a consumer item or its routine, said apparatus

~~generating element module data indicating an attribute of an element serving as a component of a first artifact, that is, said consumer item;~~

generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;

generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

generating first artifact module data indicating an attribute of said a first artifact by using said element module data;

generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

storing said first artifact module data and said second artifact module data in a searchable form; and

generating image data of a scene wherein said first artifact and said second artifact are linked by using said first artifact module data and said second artifact module data.

18. (Canceled).

19. (Canceled).

20. (Original) An image processing apparatus as set forth in claim 17, said apparatus further

generating material shape module data obtained by gathering information relating to a shape of said material, material color module data obtained by gathering information regarding a color of said material, material texture module data obtained by gathering information regarding a texture of said material, and material combination module data obtained by gathering information indicating a combined pattern of the shape, color, and design of said material and

generating said element module data by combining information gathered with at least one of said material shape module data, said material color module data, and said material pattern module data based on a combined pattern indicated by said material combination module data.